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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRY MARTIN KYLE and STEPHEN S. PENROD

Appeal 2009-004147¹
Application 10/763,476²
Technology Center 2600

Decided: November 12, 2009

Before KENNETH W. HAIRSTON, JOHN C. MARTIN, and
CARLA M. KRIVAK, *Administrative Patent Judges*.

MARTIN, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The real party in interest is Autodesk, Inc.

² Filed January 23, 2004.

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1, 3-15, 17-20, 22-34, and 36-38, which are all of the pending claims.

We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

A. Appellants' invention³

Appellants' invention relates to displaying a projection sensitive path on a two-dimensional representation of a three-dimensional object (Specification ¶ 0005) and more particularly to dynamically displaying a "great circle path" as a cursor is moved from an initial location through intermediate locations to the final location. Claim 1.

Appellants' Figure 1, labeled "Prior Art," is reproduced below.

³ References herein to Appellants' Specification are to the application as filed rather than to corresponding Patent Application Publication 2005/0162425 A1.

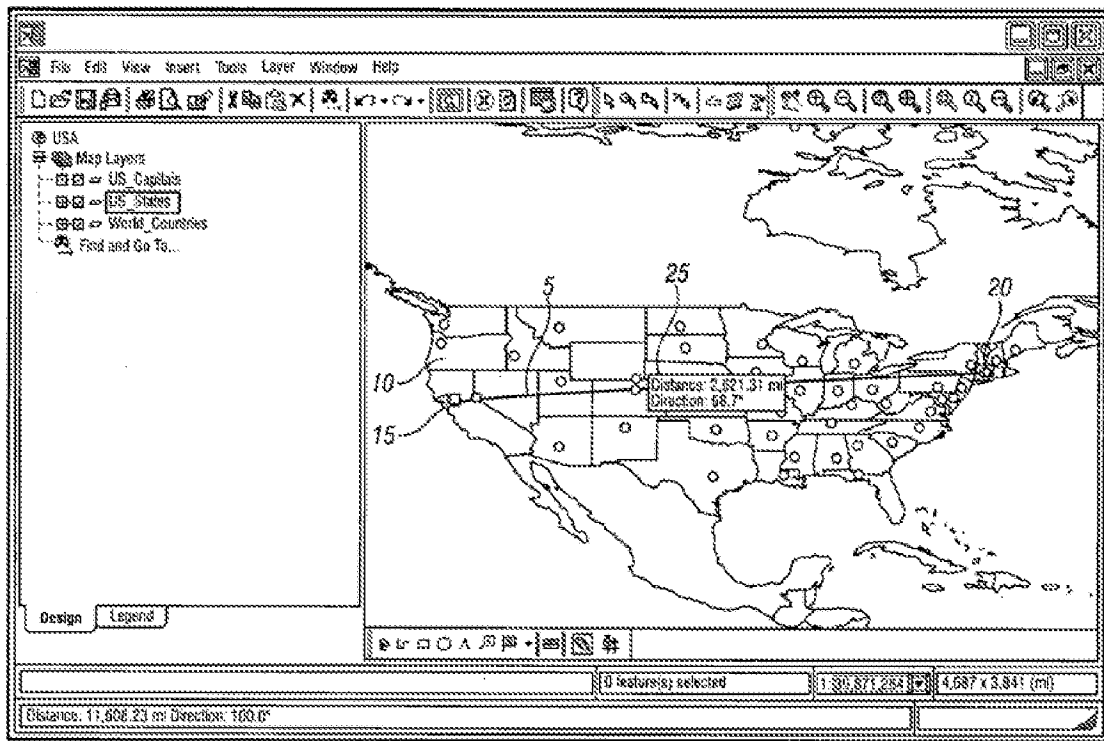


FIG. 1
(Prior Art)

Figure 1 shows a representation, obtained with a conventional electronic mapping tool, of a path between Sacramento and Boston on an electronic map depicting North America. *Id.* at ¶¶ 0004, 0018. Specifically, Figure 1 shows a path 5 between Sacramento 15 on the west coast and Boston 20 on the east coast, with a text box 25 indicating a great circle path distance of 2621.31 miles and an initial path direction of 68.7 degrees. *Id.* at ¶ 0004. Although the great circle distance is accurately stated therein as 2621.31 miles, path 5 is depicted as a straight line rather than as a great circle path. *Id.*

Appellants' Figure 2B is reproduced below.

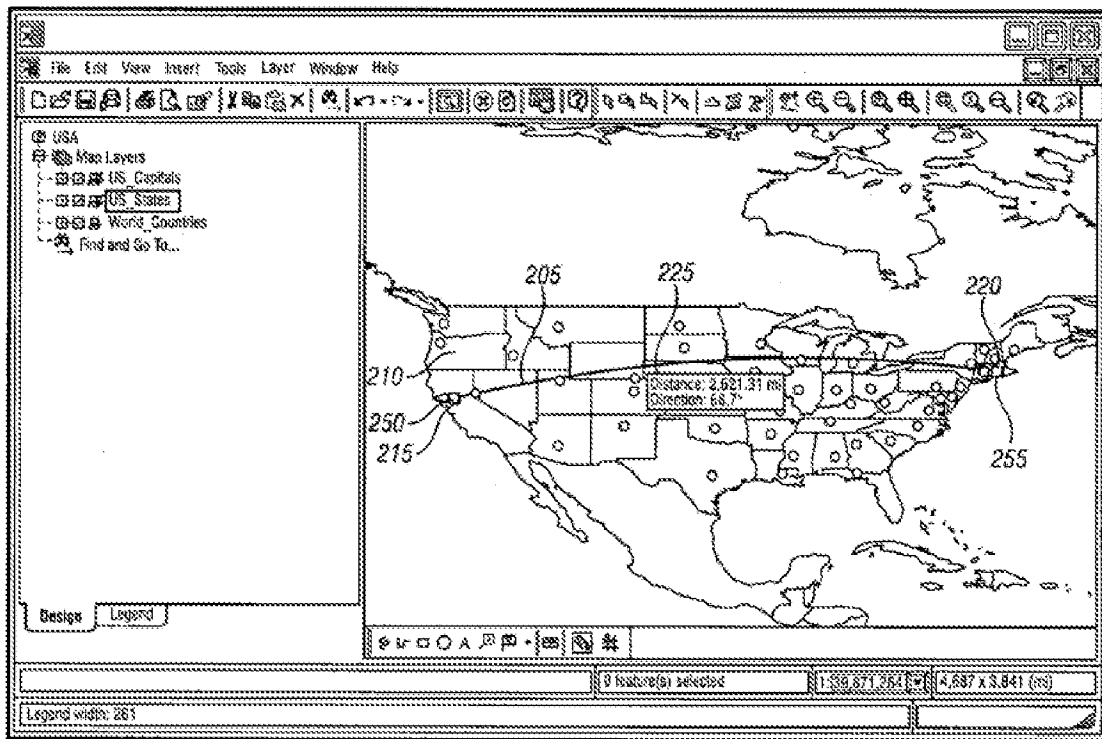


FIG. 2B

Figure 2B shows a representation of a great circle path between Sacramento and Boston on an electronic map depicting North America. *Id.* at ¶ 0020. It is apparent from Figure 2B that the geography underlying the great circle path 205 includes the Great Lakes, which in Figure 1 are not depicted as underlying the straight path 5. *Id.* at ¶ 0037.

Figure 2C is reproduced below.

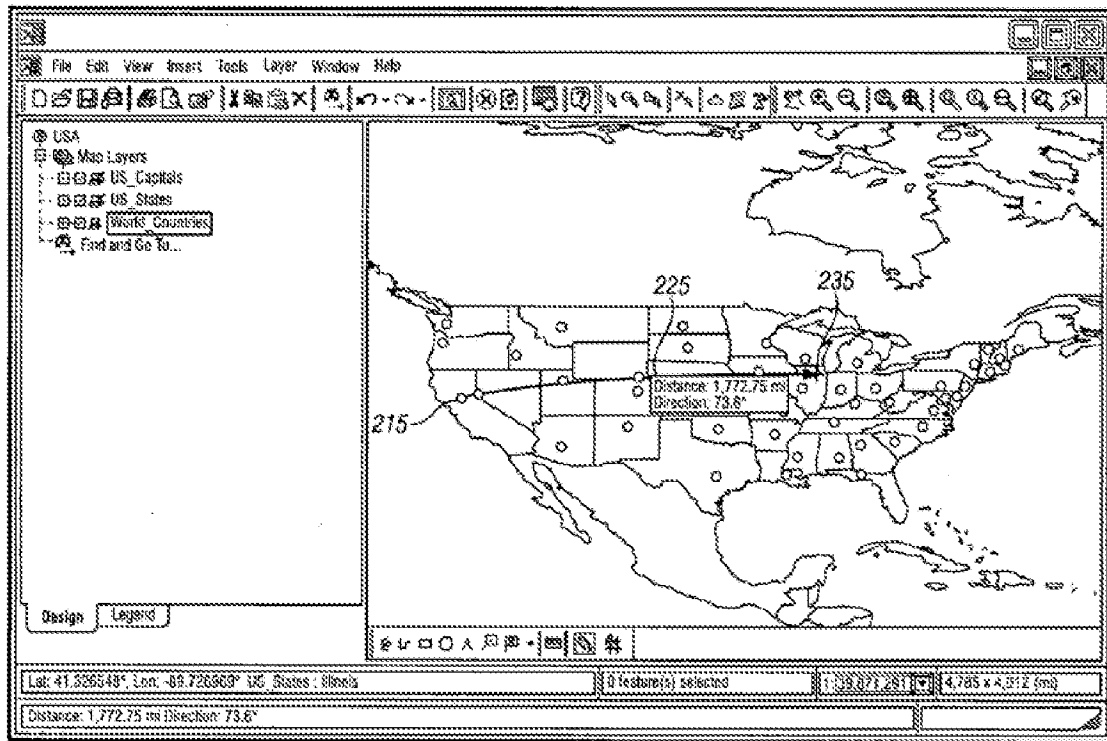


FIG. 2C

Figure 2C and the flowchart depicted in Figure 2D illustrate the operation of Appellants' path defining tool. *Id.* at ¶¶ 0021, 0022, 0038. Figure 2C shows a great circle path connecting Sacramento to a location in Illinois. *Id.* In contrast to the Nicholson and ChooseClimate references, addressed *infra*, this tool uses a click-drag-release sequence of a mouse button to identify the initial and final locations. The user begins by specifying an initial location, such as Sacramento 215, for example by positioning the cursor over Sacramento on the display screen and then left-clicking (without releasing) a mouse button that controls the cursor (Step 245 in Fig. 2D). *Id.* at ¶ 0038. With the mouse button still depressed, the user moves the cursor across the United States from Sacramento 215 through

a series of intermediate pixel locations to the final location, such as Boston 220, causing the cursor to be temporarily positioned over (i.e., pass over) each intermediate pixel location of the cursor (Step 250). *Id.* at ¶ 0039. A great circle path is shown extending from the initial location, Sacramento 215, to each new intermediate location of the cursor, thereby providing the user with an immediate visualization of the great circle path 205 to that intermediate location (Step 255). *Id.* In other words, a new great circle path is calculated and displayed for each intermediate location and for the final location. Figure 2C shows the great circle path that is displayed while the cursor is temporarily positioned over (i.e., passing over) intermediate location 235 in Illinois. *Id.* At the same time, a text box 225 displays the great circle distance to that intermediate location and the initial direction of that great circle path, which values are continuously displayed and dynamically updated as the cursor is moved (Step 255). *Id.* These operations continue until the cursor reaches the desired final location, which is indicated, for example, by releasing the mouse button, at which time the great circle path, distance, and initial direction from the initial location to the final location are displayed (Step 270). *Id.*

Appellants' invention also permits display of an area bounded by plural great circle paths. Figure 5 is reproduced below.

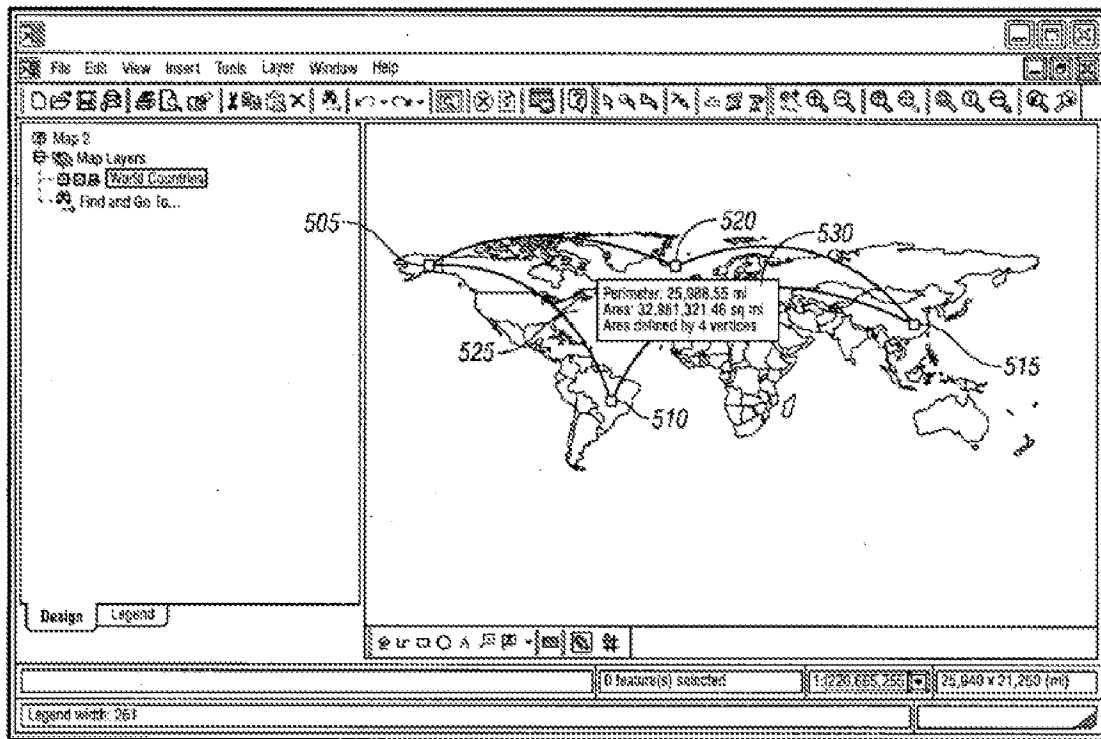


FIG. 5

Figure 5 shows an area enclosed by perimeter boundaries representing great circle paths between adjacent vertices defining the area on an electronic map depicting the World. *Id.* at ¶ 0025. As the user is defining the vertices, the great circle path along each boundary is immediately displayed (Step 615 in Figure 6). *Id.* A text box 530 is displayed and continually updated with the total distance, which is the sum of great circle distances between adjacent vertices. *Id.* Once the final location is specified, thereby defining the area 525, the value of the area is displayed in the text box 530 along with the total perimeter distance and, optionally, a description of the area, for example, "area defined by 4 vertices" (Steps 640, 645). *Id.*

Appellants also disclose dynamically displaying a path of constant direction instead of a great circle path. *Id.* at ¶ 0064. This feature is addressed in greater detail *infra* in the discussion of the rejection of claim 15.

B. The claims

The independent claims before us are claims 1, 9, 15, 20, 28, and 34, of which claim 1 reads as follows:

1. A computer-implemented method for dynamically displaying a path between at least two geographic locations, comprising:

displaying a two-dimensional representation of three-dimensional geographic data;

receiving a user input specifying an initial location on the two-dimensional representation;

receiving additional user input specifying a plurality of intermediate locations and terminating with a final location; and

while receiving the additional user input, dynamically displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location;

wherein:

receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position;

receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-

dimensional representation from the first cursor position to a position over the final location; and

dynamically displaying a great circle path comprises displaying a path representing a great circle path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location.

Claims App., Br. 16.

C. The references and rejection

The Examiner relies on the following references:

Gazza's Interactive Maps, consisting of twenty pages of screen shots obtained from the following web pages: (1) <http://www.gazza.co.nz/interactivemaps/worldmap.html> (pages 6, 7, 14, 15) (last visited Dec. 23, 2006); (2) <http://www.gazza.co.nz/interactivemaps/data.html> (screen shot page 8) (last visited Dec. 23, 2006); (3) <http://www.gazza.co.nz/interactivemaps/worldindex.html> (pages 9-13, 16-20) (last visited Dec. 23-26, 2006); and (4) the following archived web pages obtained using the Internet Archive, WayBackMachine: (a) <http://webarchive.org/web/20010806205320/http://www.gazza.co.nz/interactivemaps/index.html> (pages 1-2, page 2 showing a 2001 copyright by Gary Nicholson); and (b) "[http://webarchive.org/web/20010823215616/http://www.gazza.co.nz/interactivemaps/wo . . .](http://webarchive.org/web/20010823215616/http://www.gazza.co.nz/interactivemaps/wo...)" (pages 3-5) (hereinafter "Nicholson").⁴

ChooseClimate, consisting of four pages of screen shots obtained from the following web pages depicting "Your Journey":

(1) <http://www.chooseclimate.org/flying/mapcalc.html> (page 4) (last visited Dec. 26, 2006); and (2) the following archived web page: <http://webarchive.org/web/20000818173321/http://chooseclimate.org/flying/mapcalc.html> (last visited Dec. 23, 2006) (pages 1-3) ("ChooseClimate").

⁴ Appellants do not deny that these or the other cited web pages are available as prior art against their claims.

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Map Projections, <http://erg.usgs.gov/isb/pubs/MapProjections/projections.html>, April 2003, pages 1-26 (last visited Dec. 27, 2006) (“MapProjections”).

Microsoft Draw User's Guide 21 (Microsoft Corp., ver. 1, 1991) (“Microsoft Draw”).

“Marking Up and Measuring Your Maps,” identified as “file://C:\Documents and Settings\blb\Local Settings\Temp\~hh4b5.htm,” pages 1-25; and “Welcome to Autodesk OnSite,” identified as “file://C:\Documents and Settings\blb\Local Settings\Temp\~hhFA1F.htm” (“Autodesk”).⁵

Claims 1, 3, 4, 6-8, 20, 22, 23, and 25-27 stand rejected under 35 U.S.C. § 103(a) for obviousness over Nicholson in view of ChooseClimate and Microsoft Draw.

Claims 9-14 and 28-33 stand rejected under § 103(a) for obviousness over Autodesk in view of Nicholson, ChooseClimate, and Microsoft Draw.

Claims 5 and 24 stand rejected under § 103(a) for obviousness over Nicholson in view of ChooseClimate, Microsoft Draw, and Autodesk.

Claims 15, 17-19, 34, and 36-38 stand rejected under § 103(a) for obviousness over Autodesk in view of MapProjections and Microsoft Draw.

THE ISSUES

Appellants have the burden on appeal to show reversible error by the Examiner in maintaining the rejection. *See In re Kahn*, 441 F.3d 977, 985-

⁵ Copies provided with Appellants’ Information Disclosure Statement (Continued on next page.)

86 (Fed. Cir. 2006) (“On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.” (citation omitted)).

The principal issue before us is whether Appellants have demonstrated that the Examiner erred in concluding that the combined teachings of the references will satisfy all of the claim limitations.

THE REJECTION BASED ON NICHOLSON, CHOOSECLIMATE, AND MICROSOFT DRAW

A. *Independent claim 1 and dependent claims 3, 4, and 6-8*

Nicholson discloses interactive maps

that were developed from [Nicholson’s] Great Circle Calculator and give you a graphical method of selecting points and then viewing the path of the great circle between the two points.

The great circle is the shortest distance between the two points.

Multiple legs can be added and a printout of the entire journey produced.

Nicholson 1.

Because of the poor quality of the screen shot shown in original Nicholson page 9, we additionally rely on a new copy of that screen shot obtained using WayBackMachine from the following archived web page:
<http://web.archive.org/web/20031018152807/http://www.gazza.co.nz/>

received August 3, 2005.

interactivemaps/worldindex.html (last visited October 21, 2009).⁶ The original and new versions of Nicholson's page 9 screen shot are reproduced below.

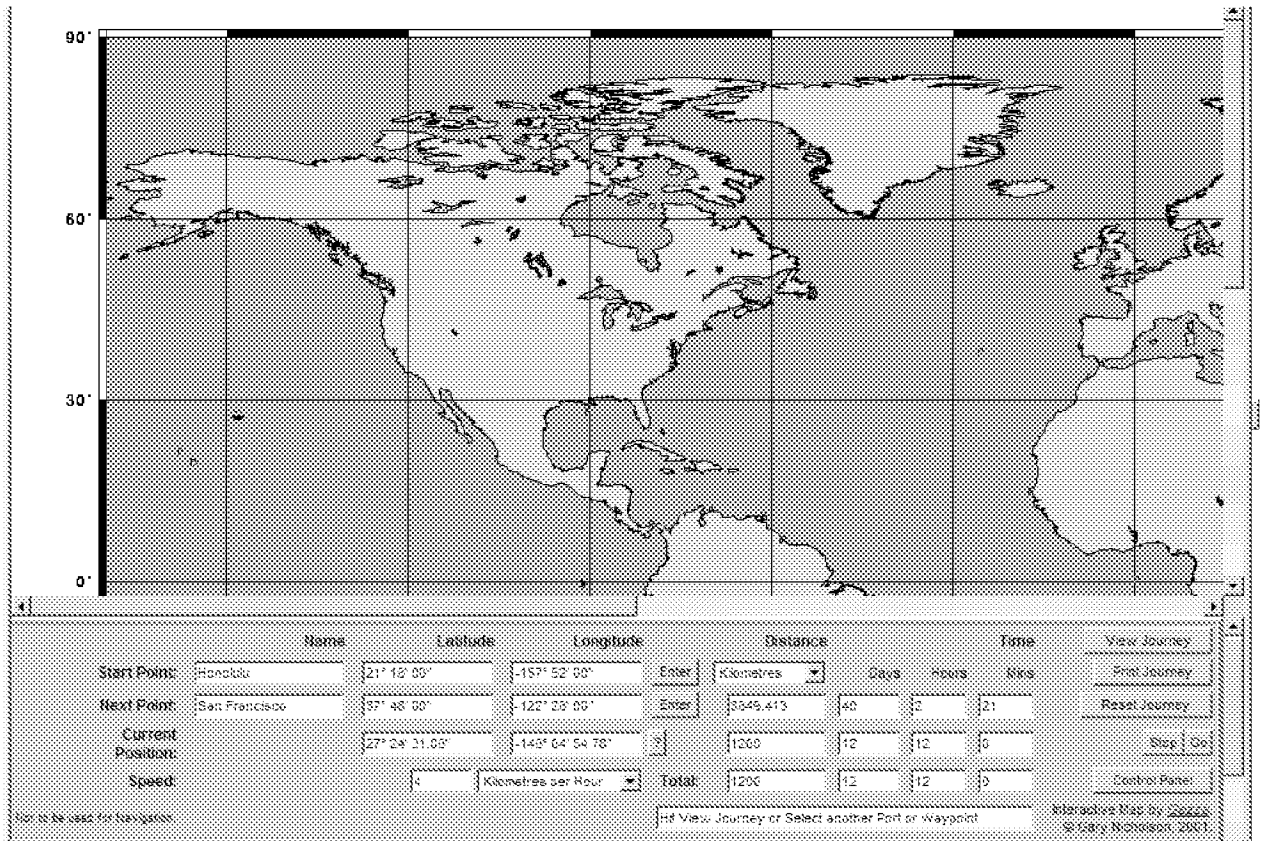
The screenshot displays a world map with a grid overlay. Below the map is a data entry and calculation interface. The interface includes fields for Start Point, Next Point, Current Position, and Speed, each with corresponding latitude and longitude coordinates. It also features a table for Distance, Days, Hours, and Minutes, and buttons for View Journey, Print Journey, and Reset Journey. A copyright notice for Gary Nicholson, 2000, is visible in the bottom right corner.

Name	Latitude	Longitude	Distance	Days	Hours	Minutes
Start Point: Honolulu	21° 19' 00"	-157° 52' 00"				
Next Point: San Francisco	37° 49' 00"	-122° 28' 00"	3843.413	40	2	21
Current Position:	37° 20' 11.65"	-145° 32' 37.08"	1185	12	8	15
Speed: 4		Kilometres per Hour	Total: 1185	12	8	15

Not to be used for Navigation. [View Journey](#) or [Select another Port or Waypoint](#) [Print Journey](#) [Reset Journey](#) [Stop](#) [Close Panel](#)

Interactive Map by [Gazza](#) © Gary Nicholson, 2000

⁶ The web page "<http://www.gazza.co.nz/interactivemaps/worldindex.html>" that is depicted in original Nicholson page 9 is no longer directly accessible on the Internet.



As explained below, Nicholson uses first and second mouse clicks to define the initial and final locations, respectively. Using the archived interactive web page depicted above, we have determined that the first and second clicks of the mouse button are used to select the cities corresponding to the “Start Point” and “Next Point. Each mouse click causes the name of the selected city and its coordinates to be displayed. After the final location has been selected, clicking on the “View Journey” button causes an icon (e.g., a ship) to begin tracing the great circle path between the cities, as

shown in the original page 9 screen shot.⁷ Clicking on the “Stop” button before the icon reaches the final location causes the icon to stop in an intermediate position, as shown in the original page 9, and causes the corresponding coordinates to be displayed as “Current Position” information. Clicking on the “Go” button causes the icon to resume its journey along the great circle path.

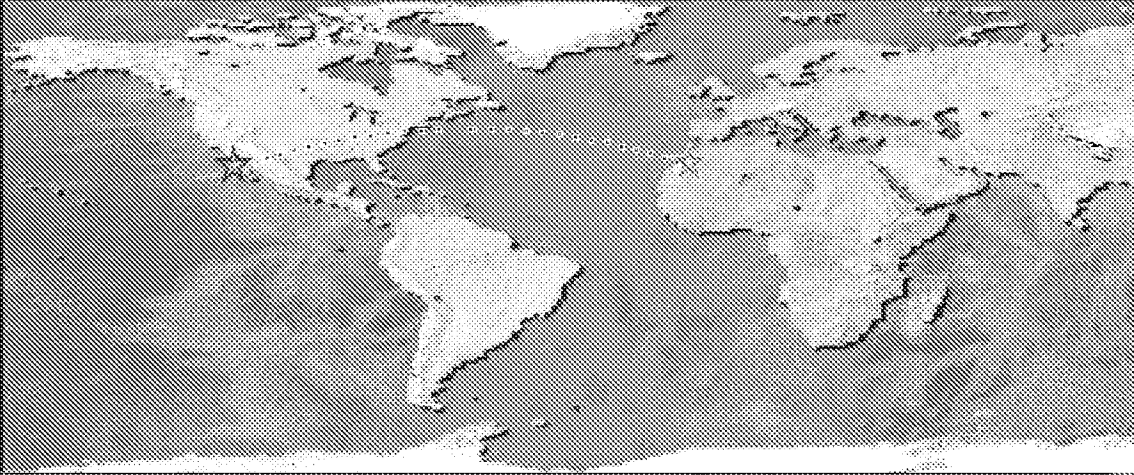
The Examiner found that “Nicholson does not explicitly teach to dynamically display the great circle path” (Final Action 4) because generating the great circle path in Nicholson requires activation of the “View Journey” button (*id.* at 11). The Examiner relies on ChooseClimate for a teaching of a dynamic display. *Id.*

Because the ChooseClimate page 1 screen shot of record is barely legible, we obtained a new copy of that screen shot, reproduced below, from one of the archived pages relied on by Examiner.⁸

⁷ We were unable to make the path appear in our new copy of page 9, despite clicking on the “Control Panel” button and selecting the “Show trail” option.

⁸ <http://web.archive.org/web/20000818173321/http://www.chooseclimate.org/flying/mapcalc.html> (last visited October 21, 2009).

Your Journey: Please click on the map to choose your departure point and destination, then see the cost calculated below.
(if the map is too squashed, you can resize the frames (drag border), or click [here](#) to reload in a separate window)



	Latitude	Longitude	City
Cursor	+		
From	★ 28° 0' N	115° 13' W	
To	★ 29° 4' N	10° 13' W	
Distance (great circle)			9825 km

Like Nicholson, ChooseClimate uses first and second mouse clicks to define the initial and final locations, respectively. In contrast to Nicholson, ChooseClimate has “Latitude” and “Longitude” boxes for the “Cursor” that continuously display the map coordinates of the cursor prior to selection of the final location. Also in contrast to Nicholson, which does not display the great circle path until the user clicks on the “View Journey” button, ChooseClimate automatically displays the great circle path and the path distance when the mouse button is used to select final location.

The Examiner found that ChooseClimate “dynamically calculates the position of the cursor as the cursor is being moved, and when the user clicks at the second location, it considers that location as the final location and

calculates the great circle distance and *dynamically displays the great circle path upon the second click . . .*” (Final Action 11 (emphasis added).) Thus, the Examiner appears to be construing the term “dynamically” in the fourth step of claim 1 to mean automatically, i.e., without the need for a separate manual input to initiate display of the great circle path. Appellants (Br. 10.) deny that automatic display of the great circle path upon selecting the second location constitutes the recited “dynamically displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location” (claim 1, fourth step). According to Appellants, “dynamically displaying” means displaying while the cursor is being dragged between the two locations (Reply Br. 1). However, it is unnecessary to decide whether the Examiner’s or Appellants’ interpretation of “dynamically displaying a great circle path” in the fourth step of claim 1 is correct because the last paragraph of claim 1 more specifically specifies that “dynamically displaying a great circle path comprises displaying a path representing a great circle path that continually increases in length as the cursor is dragged from the first cursor position to a position over the final location” (claim 1, last para.). If the Examiner is correct to rely on Microsoft Draw for such a teaching, the recitation of “dynamically displaying a great circle path” in the fourth paragraph will also necessarily be satisfied.

We accordingly turn our attention to Microsoft Draw. The relevant part of that reference, reproduced below, describes a click (without releasing)-drag-release technique for setting the initial and final points of a

straight line.

Drawing a Line

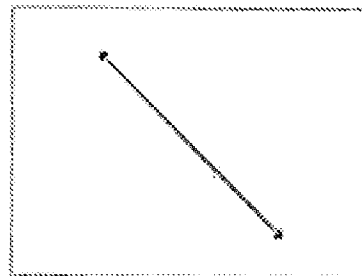
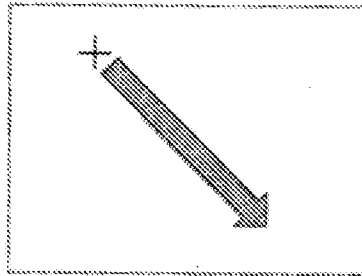


Use the Line tool to draw straight lines.



To draw a line

- 1 Select the Line tool.
- 2 Position the pointer where you want the line to start.
- 3 Hold down the mouse button and drag.
- 4 When the line is the right size, release the mouse button.



The Examiner concluded that it would have been obvious to one of ordinary skill in art at the time of present invention [to] *display the path of the line that is being drawn by the user* as taught by Microsoft Draw and apply this functionality into the method of Nicholson and ChooseClimate to dynamically display the great circle path because displaying the path as [it is] being drawn helps the user to know if he/she is dragging the mouse in the desired direction. (Final Action 5 (emphasis added).) Appellants responded by arguing that combining Microsoft Draw's line-drawing technique with Nicholson and ChooseClimate will result in displaying the *straight line path* traced by the cursor rather than the *great circle path*, as required by claim 1:

[T]he path displayed [in claim 1] is not the user-path traced on

the map by the user, but rather is a great circle path from the initial location to the current cursor position, which dynamically changes as the cursor is moved. By contrast, Microsoft Draw merely shows that a user can draw a line, where the position of the line is controlled by the user's dragging of a cursor. There is no dynamic calculation and display of a great circle path taught by Microsoft, nor by either Nicholson or ChooseClimate.

(Br. 10-11.)

In the Answer, the Examiner disagreed, explaining that it would have been obvious to continuously display the *great circle path* connecting the initial location and the intermediate locations *while* the cursor is being dragged between the initial and final locations rather than delaying generation of a great circle path until the cursor has reached the final location. *See* Answer 24 (“[T]his teaching of Microsoft Draw when combined with the teachings of Nicholson and ChooseClimate will result in a great circle path that continually increases in length as the cursor is dragged from the first position to the final position.”). We agree with the Examiner’s conclusion that it would have been obvious to combine the reference teachings in this manner.⁹ In the first place, replacing the two-click technique of Nicholson and ChooseClimate for selecting the initial and final end points of a great circle path with Microsoft Draw’s click-drag-release technique for selecting the initial and final end points of a line segment essentially involves no more than the substitution of one known

⁹ Such a modification of either one of Nicholson and ChooseClimate will
(Continued on next page.)

end-point selection technique for another. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416. Second, displaying the line of increasing length that connects the initial location to the intermediate and final locations as *a great circle path* rather than a straight line would have been obvious in order to provide a continuous, instantaneous indication of the location of the resulting great circle path. *See id.* at 418 (“[T]he [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”).

In the Reply Brief, Appellants argue that the Examiner erred in finding that ChooseClimate discloses “dynamically displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location” because in this reference “there is no display of the path being dynamically displaying extending from the initial location to each of a plurality of intermediate

satisfy claim 1.

locations as the cursor is dragged between the two locations.” (Reply Br. 1)
This argument is unpersuasive because, as noted above, the Examiner is relying in part on Microsoft Draw for such a teaching.

Because Appellants have not shown that the Examiner erred in combining the reference teachings in a manner that satisfies claim 1, we are affirming the rejection of claim 1 and its dependent claims 3, 4, and 6-8, which are not separately argued. *In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987).

B. Independent claim 20 and dependent claims 22, 23, and 25-27

Regarding claim 20, Appellants merely repeat the unpersuasive arguments they made regarding claim 1. The rejection of claim 20 and its dependent claims 22, 23, and 25-27, which are not separately argued, is therefore affirmed.

THE REJECTION BASED ON AUTODESK, NICHOLSON,
CHOOSECLIMATE, AND MICROSOFT DRAW

A. Independent claim 9 and dependent claims 10-14

Claim 9, which calls for “dynamically displaying an area bounded by great circle paths,” reads as follows.

9. A computer-implemented method for dynamically displaying an area bounded by great circle paths, comprising:
 - displaying a two-dimensional representation of three-dimensional geographic data;
 - receiving a user input specifying at least three locations

on the two-dimensional representation, each location representing a vertex where the vertices together define an area;

while receiving the user input, dynamically displaying a boundary path between adjacent locations, where each boundary path represents a great circle path between the adjacent locations and where the boundary paths together enclose an area;

wherein receiving a user input specifying a location comprises receiving input corresponding to a user positioning a cursor over the location on the two-dimensional representation and inputting a cursor position; and

wherein dynamically displaying a boundary path between adjacent locations while receiving the user input comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from a first cursor position to a second cursor position, where the first and second cursor positions correspond to adjacent locations, and dynamically displaying a boundary path representing a great circle path that continually increases in length as the cursor is dragged from the first cursor position to the second cursor position.

Autodesk discloses techniques for making measurements of maps or drawings, including measuring linear or geographic distance, distance along a path, areas, and perimeters, determining a point's coordinates, and determining view angles and direction (compass angles). Autodesk 1.

World measurements involve displaying the distance and direction and incorporate the use of the Great Circle Arc between the start and end points of the distance measured. *Id.* at 18. Areas and perimeters can be measured by defining more than three points where the first and last points are within a ten-pixel radius of each other. *Id.* at 22.

The Examiner combines the teachings of Nicholson, ChooseClimate, and Microsoft Draw in the manner discussed above concerning the rejection of claim 1 and relies on Autodesk for a teaching of displaying an area bounded by great circle paths that connect three or more locations. (Final Action 10.) Appellants respond merely by repeating their above-discussed, unpersuasive arguments against the rejection of claim 1.

The rejection of claim 9 is therefore affirmed, as is the rejection of dependent claims 10-14, which are not separately argued.

B. Independent claim 28 and dependent claims 29-33

Regarding claim 28, Appellants merely repeat the argument they made regarding claim 9. The rejection of claim 28 is affirmed, as is the rejection of dependent claims 29-33, which are not separately argued.

C. Dependent claims 5 and 24

Regarding dependent claims 5 and 24, Appellants merely repeat the arguments they made regarding claims 1 and 20, respectively. (Br. 12-13.) The rejection of claims 5 and 24 is affirmed.

THE REJECTION BASED ON AUTODESK,
MAPPROJECTIONS, AND MICROSOFT DRAW

Appellants' Specification describes alternatively calculating and displaying a rhumb line or loxodrome rather than a great circle path.

Specification at ¶ 0064. A rhumb line is a path of constant direction as contrasted to a great circle path (or orthodrome), which constantly changes direction. *Id.* As further explained by Appellants:

A user can specify an initial location and move a cursor toward a final location. A path is dynamically displayed between the initial and final locations (and temporary, intermediate locations as the user moves the cursor toward the final location) that has a constant direction. For example, sailors often use this technique for charting a course, and once the appropriate direction is determined, the sailor maintains a constant compass direction to travel from an initial location to a final location.

Id.

Claim 15 recites “dynamically displaying a path of constant direction”:

15. A computer-implemented method for dynamically displaying a path between at least two geographic locations, comprising:

displaying a two-dimensional representation of three-dimensional geographic data;

receiving a user input specifying an initial location on the two-dimensional representation;

receiving additional user input specifying a plurality of intermediate locations and terminating with a final location; and

dynamically displaying a path of constant direction extending from the initial location toward each of the plurality of intermediate locations and ultimately terminating at the final location,

wherein:

receiving a user input specifying the initial location comprises receiving input corresponding to a user

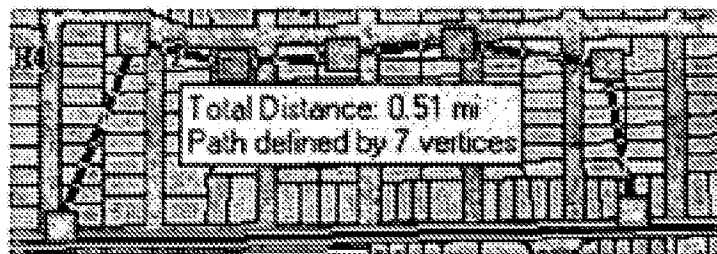
positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position;

receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location; and

dynamically displaying a path of constant direction comprises displaying a path of constant direction continually increasing in length as the cursor is dragged from the first cursor position to a position over the final location.

Autodesk provides two methods for calculating measurements on a map: paper measurements and world measurements. Autodesk 16. In contrast to world measurements, which approximate the curvature of the earth for any distances long enough to include global curvature, a paper measurement is linear, appearing in a straight line and having the angle calculated based on XY coordinates. *Id.*

The rejection of claim 15 (Final Action 16) is based on the discussion of paper measurements at pages 19-20 of Autodesk and on the figure that appears at page 20 thereof, which figure is reproduced below.



The Examiner found (Final Action 16), and Appellants apparently agree,

that the line segments connecting the vertices in this figure are straight lines.

The Examiner conceded that Autodesk fails to disclose that these straight lines represent paths of constant direction and relies on MapProjections for such a teaching. (Final Action 17.) This reference explains that a Mercator projection is “[u]sed for navigation or maps of equatorial regions. Any straight line on the map is a rhumb line (line of constant direction). Directions along a rhumb line are true between any two points on map, but a rhumb line is usually not the shortest distance between points.” MapProjections 3 (emphasis omitted).

The Examiner concluded that

MapProjections teach[es] that any straight line on the map is [a] line of constant direction (pg. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the line of constant direction as a straight line on the map as taught by MapProjections and apply it into the tool of Autodesk because representing straight lines on the map as the line of constant direction is useful for navigation (pg. 3).

(Final Action 17.) Appellants (Br. 17), correctly noting that the cited discussion of rhumb lines and lines of constant direction at page 3 of MapProjections is directed to Mercator projections, take issue with the Examiner’s above finding that “MapProjections teach[es] that any straight line on the map is [a] line of constant direction (pg. 3).” This argument is unconvincing because it incorrectly assumes the Examiner is relying on MapProjections to establish that the straight lines shown in the figure at page 20 of Autodesk inherently represent lines of constant direction. Our understanding of the Examiner’s position as stated in the Final Action is that

it would have been obvious to modify Autodesk so as to use a Mercator projection for paper measurements, with the result that straight lines will represent lines of constant direction. This position of the Examiner is stated with greater clarity in the Answer:

[I]t is reasonable to interpret that Mercator Projection map, which is . . . a two-dimensional representation of a cylindrical map as shown in the figure of pg. 3, is used by MapProjections to show any straight line on the map is a line of constant direction[]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the line of constant direction as a straight line on the map as taught by MapProjections and apply it into the tool of Autodesk because representing straight lines on the map as the line of constant direction is useful for navigation (pg. 3).

(Answer 28.) Appellants have not pointed out any error in this position of the Examiner. The Reply Brief fails to address this position or the rejection of claim 15.

Appellants' argument that "[n]one of these references disclose dynamically displaying a line of constant direction as recited in claim 15" (Br. 14) is unconvincing because it is directed to the teachings of the individual references rather than to their collective teachings. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Because, for the foregoing reasons, Appellants have failed to show error in the rejection of claim 15, we are affirming the rejection of that claim and the rejection of its dependent claims 17-19, which are not separately argued.

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B. Claims 34 and 36-38

Regarding independent claim 34, Appellants merely repeat the unconvincing arguments they made regarding the rejection of claim 15. (Br. 14.) We are accordingly affirming the rejection of claim 34 and the rejection of its dependent claims 36-38, which are not separately argued.

DECISION

The rejections of claims 1, 3-15, 17-20, 22-34, and 36-38 under 35 U.S.C. § 103(a) for obviousness over the cited prior art are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136. *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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